6/14/06 DRAFT

PROGRAMMATIC SAFE HARBOR AGREEMENT FOR THE RESTORATION OF STOCK PONDS IN ALAMEDA COUNTY, CALIFORNIA

1. INTRODUCTION

This programmatic Safe Harbor Agreement (Agreement) is entered into between the Alameda County Resource Conservation District (ACRCD) and the U.S. Fish and Wildlife Service (Service); hereinafter collectively called the "Parties." The purposes of this Agreement are (1) to promote the restoration and enhancement of stock ponds in ways beneficial to the conservation of the California red-legged frog (*Rana aurora draytonii)* and the California tiger salamander *(Ambystoma californiense)*, and (2) to provide certain regulatory assurances to landowners participating in such restoration and enhancement activities (Program Participants). This Agreement follows the Service's Safe Harbor Agreement policy (64 FR 32717) and regulations (64 FR 32706), which implement this policy..

Upon approval, this Agreement will serve as the basis for the Service to issue an enhancement of survival permit (Permit) pursuant to Section 10(a)(1)(A) of the Endangered Species Act (Act). The Permit authorizes the incidental taking of the California red-legged frog and the California tiger salamander associated with the restoration and enhancement of stock ponds on enrolled properties under the Agreement, other lawful uses of these properties, and the potential future return of any eligible land to pre-Agreement conditions (baseline) after this Agreement expires.

2. LIST OF COVERED SPECIES

This Agreement covers the following federally listed California red-legged frog and the California tiger salamander, which are hereafter referred to as the "covered species":

3. DESCRIPTION OF ENROLLED LANDS

The properties subject to this Agreement consist of those non-federal lands in Alameda County, California, on which existing stock ponds will be restored and maintained pursuant to a written agreement between the Natural Resources Conservation Service and a Program Participant, and a Cooperative Agreement between ACRCD and a Program Participant in accordance with the practice standards attached as Exhibit 1. Such properties are referred to herein as the "enrolled properties." The enrolled properties will be more precisely indicated on maps attached to the Cooperative Agreements between ACRCD and the Program Participant in the form attached as Exhibit 2. Current land use practices on properties expected to be enrolled are primarily grazing and related agricultural uses. Upon entering into a Cooperative Agreement with a Program

Participant, ACRCD will issue to such Program Participant a "certificate of inclusion" in the form attached as Exhibit 3.

4. BASELINE DETERMINATION

For each enrolled property, a determination of baseline will be made in accordance with the protocol attached as Exhibit 4 and shall be made a part of the Cooperative Agreement between ACRCD and a Program Participant. The baseline shall be based upon an assessment of the enrolled property, undertaken by a qualified person satisfactory to the Service, not more than 12 months prior to the execution of the agreement for the property. In order to receive the assurances regarding take of covered species specified in Section 11 of this Agreement, a Program Participant must maintain baseline on the enrolled property.

5. MANAGEMENT ACTIVITIES

Each agreement between ACRCD and a Program Participant shall provide for the restoration and maintenance of an existing stock pond in accordance with the practice standards attached as Exhibit 1. As set forth in more detail in such Exhibit, those practice standards have been designed to achieve a high degree of likelihood that the pond will retain water through the rearing season of the two covered species so as to allow metamorphosis of their larvae, vegetation and grazing management appropriate to the conservation needs of the covered species, effective control of non-native predators, and related measures. The object of such measures is to enhance the potential of existing stock ponds to serve as effective breeding sites for the covered species while simultaneously providing water for use by livestock. The enhanced habitat will be maintained for a minimum of ten years.

6. NET CONSERVATION BENEFIT

Implementation of this Agreement is expected to provide a "net conservation benefit" to the covered species, because the collective management activities performed by the Program Participants pursuant to this Agreement are expected to provide an increase in the covered species' populations by restoring and enhancing the covered species' habitat. Both covered species are known to breed in stock ponds; in some areas stock ponds represent significant fractions, and sometimes the majority, of known breeding sites.

The stock ponds to be restored pursuant to this Agreement are existing ponds that have suffered significant sedimentation, have need of spillway or levee repair, or are otherwise impaired. Removal of sediments will increase the availability of deep water habitats for the covered species, prolong the useful life of the pond, reduce the risk of spillway or levee failure, and lessen the risk of drying out before metamorphosis of larvae. Spillway and levee repairs will prolong the expected useful life of the ponds and reduce the risk of pond failure. The elements of the restoration practice standards pertaining to vegetation and grazing management will improve breeding and upland habitat conditions. The requirements for control of non-native predators will protect the covered species from a

threat that could dramatically reduce or eliminate the ability of a pond to serve as a breeding site. Together, these measures are expected to result in more and better breeding habitat capable of producing larger local populations that in turn are capable of dispersing over broader areas.

Existing special rules under Section 4(d) of the Act for the covered species exempt routine ranching activities from regulation, including some activities that could eliminate suitable upland habitat near breeding sites. Such exempted activities include constructing ranch outbuildings, discing areas for fire prevention purposes, planting unirrigated forage crops, and (only for the salamander), discing and grading areas for rodent control purposes. The obligation to maintain baseline under this Agreement requires that a Program Participant maintain, within 630 meters of a restored pond, an amount of suitable upland habitat that is recorded pursuant to the Protocol in Exhibit 4. Together with the restoration measures to improve breeding habitat conditions contemplated by this Agreement, the Service expects that the net effect of this Agreement will be to benefit the conservation of the covered species by increasing local population size and increasing the frequency of successful breeding years. The Service has determined that implementation of these activities is expected to produce a net conservation benefit for the covered species.

7. OTHER RESPONSIBILITIES OF THE PARTIES

A. In addition to entering into written agreements with Program Participants, as described above, ACRCD agrees to:

1. Inform the Service within 30 days of any notification it receives from a Program Participant (or from a neighboring landowner who has entered into an agreement pursuant to Section 9 of this Agreement) of the latter's intent to return restored habitat to baseline conditions or otherwise modify or restore the restored habitat after the Natural Resources Conservation Service contract period expires and within 50 years of initial pond restoration

2. Include in its Cooperative Agreements with Program Participants a provision pursuant to which the Program Participant agrees to notify ACRCD in advance of any plan to convert areas within 630 meters of the restored pond into unsuitable habitat; to request of ACRCD its recommendations to avoid or minimize impacts to the covered species when carrying out such plans; and to work with ACRCD to ensure that such conversion does not create a barrier to dispersal of the covered species to any other potential breeding pond that lies within 0.7 miles of the restored pond.

3. Monitor implementation of the terms of its agreements with Program Participants and promptly seek to rectify any problems arising therefrom.

4. Provide the Service with an annual report, due by March 31 of each year, summarizing the actions undertaken by it pursuant to this Agreement during the preceding year.

5. Notify the Service of any injured or killed specimens of the covered species of which it becomes aware as a result of the implementation of pond restoration measures; and

6. Furnish the Service with copies of the following agreements with Program Participants within 2 weeks after the Certificate of Inclusion is issued: Practice Requirements sheet described in Exhibit 1; Certificate of Inclusion; and signed Baseline Habitat Protocol.

B. In consideration of the foregoing, the Service agrees to:

1. Upon execution of the Agreement, issue to ACRCD a permit in accordance with Section 10(a)(1)(A) of the Act, and valid for a period of 50 years, authorizing take of the covered species as a result of implementing management activities specified in an agreement with a Program Participant, or as a result of other covered activities on enrolled properties after the management activities specified in such agreement have been initiated, provided that such taking shall be consistent with maintaining baseline conditions on the enrolled property. The permit will also authorize take for the potential future return of the Enrolled Property to baseline conditions.

2. Provide to ACRCD and Program Participants technical assistance, to the maximum extent practicable, when requested; and provide information on Federal funding programs.

8. COVERED ACTIVITIES

All or nearly all of the individuals of the covered species are expected to utilize upland habitats not more than 630 meters from their breeding ponds. Accordingly, as a practical matter, only activities with 630 meters of a breeding pond have a significant risk of causing a detectable taking of the covered species. Therefore, "covered activities" under this Agreement include any otherwise lawful activities within the enrolled properties that have been restored or enhanced pursuant to this Agreement, provided such activities are consistent with zoning requirements in effect at the time of issuance of the permit referenced in Section 7B.1 of this Agreement. Although for the reason just given, nothing done pursuant to this Agreement is expected to affect the rights or responsibilities of a Program Participant beyond 630 meters from a breeding pond that has been restored or enhanced pursuant to this Agreement, "covered activities" shall also include all routine ranching activities, wherever undertaken.

9. OTHER LANDOWNERS WHO MAY SECURE INCIDENTAL TAKE AUTHORIZATION

Landowners who own land adjoining an enrolled property may, without committing to undertake any management activities described in Section 5 of this Agreement on such adjoining land, secure the incidental take authority conferred by the permit issued by the Service to the Program Administrator pursuant to Section 7.B.1, provided: (1) such

adjoining land is within 630 meters of a restored pond on an enrolled property; (2) a survey undertaken on the adjoining land by a qualified person satisfactory to the Service establishes the baseline conditions on the adjoining property; and (3) the owner of the adjoining property enters into a written agreement with ACRCD, in the form attached hereto as Exhibit 5, in which the owner agrees maintain baseline conditions and to work with ACRCD to ensure that any conversion of suitable upland habitat to unsuitable habitat does not create a barrier to dispersal of the covered species to any potential breeding pond on the adjoining property within 0.7 miles of the restored pond.

10. AGREEMENT AND PERMIT DURATION

The Agreement becomes effective upon issuance by the Service of the Section 10(a)(1)(A) permit described in Section 7 of the Agreement,, and will be in effect for 50 years. The permit will have a term of 50 years. Agreements between ACRCD and Program Participants pursuant to this Agreement will be for a term of at least 10 years.

11. ASSURANCES REGARDING TAKE OF COVERED SPECIES

Provided that such take is consistent with maintaining the baseline conditions identified in Section 4 of this Agreement, the Section 10(a)(1)(A) permit referenced in Section 7 shall authorize the taking of covered species by Program Participants, their employees or agents (and by neighboring landowners who have entered into agreements pursuant to Section 9 of this Agreement), incidental to covered activities, incidental to implementing the management activities identified in Section 5 of this Agreement, and returning to baseline.

12. MODIFICATIONS

A. Modification of the Agreement. Either party may propose amendments to this Agreement by providing written notice to, and obtaining the written concurrence of, the other Party. Such notice shall include a statement of the proposed modification, the reason for it, and its expected results. The Parties will respond to proposed modifications within 60 days of receipt of such notice. Proposed modifications will become effective upon the other Parties' written concurrence.

B. Termination of the Agreement. As provided for in Part 12 of the Service's Safe Harbor Policy (64 FR 32717), a Program Participant may terminate his agreement with ACRCD for circumstances beyond his or her control, without affecting his rights under this Agreement, by giving written notice to ACRCD. In such circumstances, the Program Participant may, pursuant to the permit referenced in Section 7.B.1 of this Agreement, return the enrolled property to baseline even if the management activities identified in Section 5 have not been fully implemented.

C. Permit Suspension or Revocation. The Service may suspend or revoke the permit referenced in Section 7.B.1 above for cause in accordance with the laws and regulations in force at the time of such suspension or revocation. ACRCD or any Program

Participant has the right to appeal any suspension or revocation to a mutually agreed upon arbitrator.

D. Baseline Adjustment. The baseline for any enrolled property may, by mutual agreement of the Parties and the Program Participant, be adjusted if, during the term of this Agreement and for reasons beyond the control of the Program Participant, the amount of suitable breeding or upland habitat on the enrolled property is diminished.

E. Inability of ACRCD to Continue. If ACRCD shall, for any reason, cease to be able to perform its obligations under this Agreement, it shall give written notice of that fact to the Service at least 60 days prior to ceasing to perform its obligations under the Agreement. Upon receiving such notice, the Service may, at its discretion after consultation with Program Participants, either amend this Agreement and the associated permit to substitute a new party in place of ACRCD, or, if a Program Participant prefers, convert any previously approved Agreement between ACRCD and a Program Participant into an individual safe harbor agreement between the Program Participant and the Service under the same substantive terms.

13. OTHER MEASURES

A. Remedies. No party shall be liable in monetary damages for any breach of this Agreement, any performance or failure to perform an obligation under this Agreement or any other cause of action arising from this Agreement.

B. Dispute Resolution. The Parties agree to work together in good faith to resolve any disputes, using dispute resolution procedures agreed upon by all Parties.

C. Succession and Transfer. As provided in Part 11 of the Service's Safe Harbor Agreement Policy, if a Program Participant transfers his or her interest in the enrolled property to another non-Federal entity, the Service will regard the new owner or manager as having the same rights and responsibilities, including baseline responsibilities, with respect to the enrolled property as the original Program Participant, if the new owner or manager agrees to become a party to the existing agreement with ACRCD in place of the original Program Participant.

D. Availability of Funds. Implementation of this Agreement is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this Agreement will be construed by the Parties to require the obligation, appropriation, or expenditure of any funds from the U.S. Treasury. The Parties acknowledge that the Service will not be required under this Agreement to expend any Federal agency's appropriated funds unless and until an authorized official of that agency affirmatively acts to commit to such expenditures as evidenced in writing.

E. No Third-Party Beneficiaries. This Agreement does not create any new right or interest in any member of the public as a third-party beneficiary, nor shall it authorize anyone not a party to this Agreement to maintain a suit for personal injuries or damages

pursuant to the provisions of this Agreement. The duties, obligations, and responsibilities of the Parties to this Agreement with respect to third parties shall remain as imposed under existing law. In the event that any third party successfully challenges the permit referenced in Section 7.B.1 of this Agreement, the Service shall, at the request of a Program Participant, allow such Participant to return his enrolled property to its baseline conditions.

F. Other Listed Species, Candidate Species, and Species of Concern. In the event that other stock pond-associated species in Alameda County not initially covered by this Agreement are subsequently listed as threatened or endangered under the Act, the parties agree to amend this Agreement, and subject to the concurrence of the Program Participant, any certificates of inclusion previously issued hereunder, to include such other species as covered species. The amendment of any certificate of inclusion pursuant to this provision shall specify as the baseline for such subsequently listed species the amount of habitat for that species on the enrolled property that existed at the time the certificate was issued, insofar as such determination can be made from the protocol attached as Exhibit 4.

G. Notices and Reports. Any notices and reports, including monitoring and annual reports, required by this Agreement shall be delivered to the persons listed below, as appropriate:

Karen Sweet
Alameda County Resource Conservation District
3585 Greenville Rd
Suite 2
Livermore, CA 94550

Field Supervisor,
U.S. Fish and Wildlife Service
2800 Cottage Way
Room W-2605
Sacramento, CA 95825

IN WITNESS WHEREOF, THE PARTIES HERETO have executed this Safe Harbor Agreement to be in effect as of the date that FWS issues the permit referred to in Section 7.B.1 above.

_____ _____

Karen Sweet Date
Alameda County Resource Conservation District

_____ _____

Field Supervisor Date
Sacramento Fish and Wildlife Office
U.S. Fish and Wildlife Service

Exhibit 1

Revised
4/06

DRAFT POND RESTORATION DESIGN AND PLAN
PER PRACTICE REQUIREMENTS 643 - RESTORATION AND MANAGEMENT OF DECLINING HABITATS and 378 POND
Alameda County Permit Coordination Program

Purpose

The Natural Resources Conservation Service (NRCS) and Alameda County Resource Conservation District (ACRCD) working together as the Alameda County Conservation Partnership (Conservation Partnership), are offering landowners the opportunity to repair and restore existing stock ponds on private lands under the Alameda County Permit Coordination Program (permit coordination program). Under the permit coordination program, pond restoration is limited to the repair, improvement, and maintenance of existing pond structures for livestock water and wildlife habitat . A wildlife-friendly option is available that is designed to meet the biological requirements of the federally threatened California red-legged frog (*Rana aurora draytonii*) and the California tiger salamander (*Ambystoma californiense*). No new in-stream pond applications would be approved nor would restoration activities involve any increase in the original storage capacity of a pond. The wildlife-friendly option will be available only for ponds that will provide > 0.1 acre surface area, unless the pond location provides particular value to the metapopulation of a listed species.

Protocol

In keeping with NRCS policy regarding conservation practice implementation, elements of the NRCS Conservation Practice 643 - RESTORATION AND MANAGEMENT OF DECLINING HABITATS will be used in conjunction with associated engineering practices to restore ponds, as outlined below under NRCS Conservation Practice 378 Pond. Specific design and maintenance requirements developed for each individual pond restoration project will be recorded in blocks 4 and 5 of the Practice Requirements sheet for 643 Restoration and Management of Declining Habitats (Tab 3). Blocks 4 and 5 are Special Requirements and Special Maintenance Requirements, respectively. The Practice Requirements sheet is reviewed and signed by the landowner/operator and NRCS.

Pond Restoration Design

NRCS and ACRCD will prepare a site specific restoration design and maintenance plan for each pond enrolled under the permit coordination program. Producers wishing to repair and/or improve a stock pond will choose either the Basic Pond Restoration Option

or the Wildlife-Friendly Option. The Wildlife-Friendly Option incorporates all of the components of the Basic Option; adds design and maintenance requirements that will benefit California red-legged frogs and California tiger salamanders; and offers greater incentives to participating landowners.

At present, NRCS does not have a conservation practice specific to pond restoration. However, consistent with existing policy, NRCS will use the Conservation Practice Standard, 643 – Restoration and Management of Declining Habitats, in conjunction with Conservation Practice Standard 378-Pond for this pond restoration program, by adapting those standards and specifications that apply to structural components of pond restoration (such as repairing or installing a spillway and repairing embankments) as well as relevant wildlife management requirements (such as establishing vegetative cover or installing protective fencing, when specified). In addition, NRCS will incorporate applicable elements of the following associated NRCS conservation practices, to provide a complete pond restoration and maintenance design that meets Federal standards:

- Critical Area Planting (342A)
- Grade Stabilization Structure (410)
- Grassed Waterway (412)
- Obstruction Removal (500)
- Riparian Forest Buffer (391)
- Structure for Water Control (587)

The application of these practices to pond restoration is shown schematically in the *Draft Diagram of NRCS Conservation Practices Used in Pond Restoration* (Figure 1) and is summarized as follows:

- Critical Area Planting-Straw Mulch (Specification 342A)

    - All areas disturbed during construction must be revegetated and protected from surface soil erosion. Specific grass seed mixes will be planted to control erosion. Native seed mixes such as California brome (*Bromus carinatus*) and purple needle grass (*Nasella pulchra*) will be used where feasible. Fertilizer use will be minimized or eliminated if possible. This practice specification also prescribes temporary surface soil erosion protection; wildlife-friendly ponds will use straw mulch, and other organic filtering systems that do not contain plastic netting or other netting material that may entrap California red-legged frogs or California tiger salamanders. Specified non-invasive, non-persistent grass species may be used as nurse crops or for temporary erosion control to stabilize disturbed slopes until native species are established.

- Grade Stabilization Structure (Specification 410)

    - This practice specification relates to the design and repair of the emergency earthen spillways and any outfall structures constructed in association with practice specification 587- Structure for Water Control. It prescribes where and how grade stabilization structures will be used to address potential gully erosion associated with the spillway. This practice is especially important where the emergency spillway will also act as the primary spillway in pond restoration.

- Grassed Waterway (Specification 412)

    - This practice specification relates to the design and construction of the surface of the earthen emergency spillway when there will also be a primary spillway installed under practice specification 587- Structure for Water Control. It specifies the necessary site preparation and seeding recommendations for grass-lined waterways.

- Obstruction Removal (Specification 500)

    - This practice specification relates to the removal of silt, concrete rubble, rock, wood, old tires, refuse (such as household trash) and other debris from the pond area and spillway prior to or during excavation. The type and extent of material to be removed will be determined onsite by the NRCS, recognizing that woody debris and rocks provide basking, retreat, and aestivation sites for a variety of pond-dwelling species, as well as shelter and denning sites for upland species that may water at the pond or forage, hunt, or move through the adjacent area. All material removed will be properly disposed of off-site at approved locations.

- Riparian Forest Buffer (Specification 391)

    - This practice specifies site preparation and the planting of native vegetation, as appropriate to a site, ultimately resulting in the establishment of riparian tree or shrub canopy and/or understory development on stable areas near and adjacent to ponds and other water bodies. Livestock will be managed or excluded as necessary to achieve the intended purpose.

- Structure for Water Control (Specification 587)

    - This practice specification usually relates to the installation of corrugated metal pipe as the primary spillway in pond restoration. The practice specification prescribes pipe sizing based on the hydrology of the

watershed; required appurtenances, such as anti-seep collars and inlet and outlet structures; and installation requirements, such as fill materials, compaction, and depth of cover.

Required Habitat Enhancements and Maintenance Activities under the Wildlife-Friendly Option

The Conservation Partnership, in partnership with the Sacramento Fish and Wildlife Office's Recovery Program and Partners for Fish and Wildlife Program, wishes to provide further incentives above and beyond the existing permit coordination program to landowners to restore and maintain additional habitat benefits for the red-legged frog and the tiger salamander. Landowners who voluntarily choose to install and maintain the enhanced, wildlife-friendly conservation practice would be required to restore and manage stock ponds in accordance with the biological needs of the red-legged frog and tiger salamander.

The restoration design and maintenance plan for each pond will be developed by NRCS and/or ACRCD and approved by ACRCD and a *Service-approved* biologist. Such plan will be based on a site-specific evaluation of the terrain and hydrologic regime (e.g., adequacy and timing of the water supply), the presence upstream of any livestock corrals or sacrifice areas, and the presence of non-native predators (e.g., bullfrogs, crayfish and introduced fish, such as mosquito fish, bass, green sunfish) in the pond or in other ponds within a one mile radius. In addition, the evaluation will incorporate factors important to metapopulations of the two target species, e.g., by noting the proximity of other ponds supporting red-legged frogs and/or tiger salamanders as well as ponds supporting bullfrogs. The plan will optimize conditions for both the California red-legged frog and California tiger salamander to the extent possible, except in cases where the landowner requests greater deference to one species or where ACRCD determines that the pond location or site characteristics are clearly more suitable for one of these two listed species.

The following features and requirements for management and maintenance will be incorporated as special requirements into the plan as appropriate for an individual pond enrolled under the Wildlife-Friendly Option:

- Pond size and design features.
    - Ponds will be sized to retain sufficient water for tadpole development during the entire rearing season (January, or whenever rains commence, through late July or early August in most years); ponds can be allowed to dry during the fall (typically mid-August through early December). [1]
    - Ponds will contain a shallow water area for tadpole and juvenile rearing. This shallow area (0.25 – 0.5 m deep) should be unshaded and contain no or very short emergent plants. The shallow area will be designed so that

[1] Note that pond management that mimics the natural water cycle, where possible, will be the most beneficial for the California red-legged frog and the California tiger salamander (USFWS 2002).

the water warms quickly in the winter sun but is of sufficient water depth to provide aquatic habitat throughout spring.
    - Ponds also will contain a deep water escape area with portions deeper than 1 meter.[2] This deep water area should contain a mosaic of open water and dense aquatic vegetation, or dense patches of shoreline vegetation adjacent to deep water.
    - When possible, the areal extent of the shallow and deep portions of the pond should be about equal.

- Vegetation for embryo attachment and refuge.
    - Plant species commonly found in California red-legged frog breeding ponds should be present, be expected to regenerate or colonize naturally, or be planted. These species include spike rushes (*Eleocharis* spp.), rushes(*Juncus* spp.), bulrushes(*Scirpus* spp.), cattails(*Typha* spp.), and willows(*Salix* spp.).
    - Existing emergent vegetation will be minimally disturbed, except for prescribed grazing or other management.[3]
    - NRCS and/or ACRCD will develop a vegetation management plan -- as necessary to supplement the grazing management plan -- to provide suitable conditions for the California red-legged frog and the California tiger salamander.

- Habitat complexity. Partially submerged rocks, logs or other structures may be added to the pond as basking sites for the California red-legged frog and refugia for both California red-legged frogs and California tiger salamanders as well as for other aquatic species, such as the Pacific pond turtle (*Clemmys marmorata*).

- Suitable upland dispersal and aestivation habitat adjacent to the pond.
    - Suitable habitat – low grassland with brushy areas [4] -- will be maintained

[2] Including an area deeper than 1 meter provides an area where California red-legged frogs can escape predators, and including an area deeper than 1.5 meters discourages uniformly thick growth of emergent plants that might shade the entire area (which would provide poor habitat for both California red-legged frogs and California tiger salamanders).

[3] Vegetation management will represent a compromise between the needs of the California red-legged frog and the California tiger salamander, as necessary. California tiger salamanders do well in relatively muddy stock ponds with limited plant growth in the shallow areas; dense vegetation is undesirable because it makes the ponds clear, makes prey more difficult to catch, and makes the salamanders more vulnerable to predators. California tiger salamanders attach embryos to grass, herbs, and debris present in the ponds. California red-legged frogs do well in ponds with areas of dense vegetation next to open patches of habitat. For example, willow root wads immediately adjacent to deep water make excellent habitat for adult frogs. In the shallow warm-water areas, dense thickets of vegetation should be avoided. It is anticipated that much of the vegetation management will be accomplished via the grazing management plan.

[4] Post-metamorphic CRLF and CTS spend much of each year on land and providing appropriate upland habitat conditions is essential to maintaining healthy populations. CRLF require above-ground vegetation for shelter. They need moist microhabitats where they can find refuge when moving around on land, especially if the pond is dry. Bulger et al. (2003) found that CRLF use dense patches of shrubs and herbaceous vegetation and, based on radio tracking, recommended protecting these resources within 100m of ponds. They also observed CRLF moving among ponds up to 3 km apart, but found no clear habitat

as provided by the grazing and vegetation management plans. In addition, densely packed piles of rocks, woody debris, and soil approximately six feet high and eight feet across can be left in place or added. [5]

- A moist refuge – a seep wetland, plunge pool, or other microhabitat specified by NRCS and/or ACRCD -- must be provided for California red-legged frogs during periods when the pond is dry.

- Rodent control.
  - If rodent activity is observed in the dam face or at the site of any other installed conservation practice associated with the pond, the landowner/Program Participant must contact ACRCD immediately in writing. Prior to conducting any rodent control or eradication activity, the landowner must receive from NRCS and/or ACRCD (1) an evaluation of the problem and its threat to the structural integrity and sustained functioning of the conservation practice; and (2) technical assistance regarding the appropriate method and extent of rodent control.
  - If problematic rodent activity is observed elsewhere in the riparian and upland areas within 630 m of the pond, rodent control and burrow modification shall be minimized and shall be undertaken only after consultation with ACRCD. In keeping with the "4d" rule governing ranching activities in the upland areas within 1.1 km (0.7 mi) of a breeding pond, use of fumigants is not allowed, poison bait is allowed only if it is broadcast or put in confined bait stations, discing and/or grading of burrows should be limited to those areas where livestock congregate or move in large numbers, and deep-ripping should be avoided.

- Grazing management plan.
  - NRCS and/or ACRCD will develop a grazing management plan to manage livestock access to the pond and uplands for the benefit of the California red-legged frog and California tiger salamander. The plan will address timing and intensity of grazing for the various portions of the pond and upland areas to maintain optimum vegetation including protocols to help keep the shallower, tadpole-rearing portions of the pond free of emergent vegetation that shades the water, as described in the "shallow water area" and "vegetation" sections above .
  - Limited exclusionary fencing will be utilized to protect the vegetation as

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preferences during migration. Outside of the breeding season, CTS live exclusively on land, primarily in the burrows of ground squirrels and gophers. CTS have been found up to 2 km from any known breeding pond, although CTS adults remain more concentrated within 200 m of the pond. Trenham and Shaffer (Ecological Applications, 2005) estimate that in optimal habitat 95% of CTS remain within 630m of breeding ponds.

[5] Such piles provide excellent sites for burrowing of ground squirrels and other rodents, which then produces suitable estivation habitat for salamanders adjacent to breeding sites. Suitable placement of such piles away from the dam area also lowers the likelihood that ground aquirrels will burrow along the dam face.

necessary.
    - Primary off-site livestock watering will be provided where feasible and necessary to better manage livestock access to the pond[6]

- Predator control.
    - The ponds will be managed to reduce or eliminate non-native predators (e.g.,bull frogs, fish, crayfish). If non-native predators are present and the pond has not dried for two consecutive years, either: (1) the pond should be drained completely before the end of the calendar year; or (2) alternative predator management measures recommended by ACRCD must be undertaken.
    - ACRCD may require draining of the pond in fall of additional years, or may require other management procedures approved jointly by the landowner and the Fish and Wildlife Service.
    - The pond must be free of non-native vertebrates and crayfish when construction (pond restoration) is complete, and no non-native predatory animals (including bass or other predatory fish) may be willfully introduced during the life of the pond practice. The landowner will contact ACRCD when it is known or suspected that non-native predators have become established in the pond, and an ACRCD-approved response plan will be developed and implemented.

- Other requirements for adjoining land management.
    - Pesticide and fertilizer use in, as well as pesticide and fertilizer transport to, the pond and areas upstream of the pond will be minimized.[7]

    - To the extent feasible, vegetative buffers, a sediment trap, grazing management, or other management techniques will be used upstream of the pond to reduce sediment loading.[8]
    - To the extent feasible, plant and/or manage preferentially for native grasses and control non-native invasive species by hand, mowing, or grazing.

References

[6] Providing some livestock access to the ponds is beneficial, because stirring up some mud provides good habitat for larval California tiger salamanders and limits aquatic plant growth.

[7] See the Programmatic Formal Endangered Species Consultation for the basic pond option, dated August 12, 2004 for additional restrictions on pesticide and herbicide use in and around the ponds.

[8] The purpose of this provision is to extend the life of the pond by reducing sediment delivery and siltation, and reduce nutrient transport to the pond via soil particles.

Bulger J.B., N.J. Scott, and R.B. Seymour. 2003 Terrestrial activity and conservation of adult California red-legged frogs Rana aurora Draytonii in coastal forests and grasslands. *Biological Conservation* 110:85-95.

Trenham, P.C., and H.B. Shaffer. 2005. Amphibian upland habitat use and its consequences for population viability. Ecological Applications 15(4):1158-1168.

U.S. Fish and Wildlife Service. 2002. Recovery Plan for the California red-legged frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. vii + 173 pp.

EXHIBIT 2

Alameda County Pond Restoraton Safe Harbor Cooperative Agreement

This is a voluntary agreement that recognizes the unique and important role that private landowners in California can play in helping wildlife valued by the people of the state and of the nation. The purpose of the agreement is to enable land management activities beneficial to rare species to be carried out on privately owned land while minimizing the impact of such activities on the right and ability of the owner or manager thereof to use it as he or she wishes. The terms of this agreement are as follows:

1. The Alameda County Resource Conservation District ("Program Administrator") and _____ (Program Participant) have entered into this Agreement to improve and manage habitat for the betterment of wildlife, including endangered species, on certain land owned or managed by the Program Participant that are delineated on the attached map (Exhibit A), and referred to herein as the "enrolled property."

2. On [date], 2006, the United States Fish and Wildlife Service (Service) issued to the Program Administrator an endangered species permit that authorizes, until the year [2056], the incidental taking of California red-legged frogs and California tiger salamanders by Program Participant and other persons who enter into cooperative agreements with the Program Administrator pursuant to the permit.

3. Program Participant agrees to conduct, or allow to be conducted, activities to restore or enhance breeding pond habitat in accordance with the design and practice requirements of the Natural Resources Conservation Service's "Wildlife Friendly Option" set forth in Exhibit 1 of the Safe Harbor Agreement between the Program Administrator and the Service, and maintain such habitat for a period of 10 years from the date of this Agreement.

4. The Program Participant further agrees to promptly report to the Program Administrator the observation of any dead specimens of the California red-legged frog or the California tiger salamander.

5. In consideration of the foregoing, the Program Administrator has issued to the Program Participant a Certificate of Inclusion under the Program Administrator's permit. This Certificate authorizes the Program Participant and the Program Participant's successors or assigns:

a) to take the species identified above incidental to implementing the management activities set forth in this Agreement;
b) after initiation of, and consistent with such management activities, to carry out any other covered activities that may cause the incidental taking of

such species on the enrolled property, provided that such taking does not reduce baseline habitat conditions below the amount specified in Part 7 below.

As used in this Cooperative Agreement, "incidental" take refers to the unintentional or unavoidable killing or injuring of the species identified above in the course of carrying out otherwise lawful activities. Nothing in this Cooperative Agreement authorizes Program Participant to capture, collect, or deliberately kill or injure any such species or to carry out any activity that may be regulated under any authority other than the Endangered Species Act without complying with such other authority. As used in this Cooperative Agreement, the term "covered activities" includes any otherwise lawful activities within 630 meters of a breeding pond that has been restored or enhanced pursuant to this Cooperative Agreement, provided such activities are consistent with zoning requirements in effect at the time of issuance of the permit referenced in Section 2 hereof. The term "covered activities" shall also include all routine ranching activities, wherever undertaken.

6. After the agreed-upon management activities have been initiated, Program Participant agrees to give the Program Administrator at least 90 days notice (except when precluded by emergency situations) prior to commencing any change in land use within 630 meters of the restored or enhanced pond that is likely to result in the incidental taking of any of the species identified above, and to allow the Program Administrator or the Service the opportunity to rescue and relocate any individuals of the above species from Program Participant's land to avoid their loss. Program Participant further agrees to request of the Program Administrator its recommendations to avoid or minimize impacts to the covered species when carrying out such conversion activities and to work with the Program Administrator to ensure that such conversion does not create a barrier to dispersal of the covered species to any other potential breeding pond that lies within 0.7 miles of the restored pond.

7. The Program Participant and the Program Administrator agree that at the time that this Cooperative Agreement was signed, the baseline was as set forth in the signed "Protocol for Determining Baseline Habitat" attached hereto. So long as Program Participant maintains such baseline conditions, Program Participant may incidentally take the species as provided in Part 5 above. If requested by the Service within 90 days of its receiving a copy of the Cooperative Agreement, the Program Participant agrees to allow the Service access to the enrolled portion of Program Participant's property for the sole purpose of verifying the baseline determination set forth in this paragraph.

8. Successors and assigns may incur the responsibilities and benefits of this Agreement by becoming a party thereto, unless terminated in writing as specified below. If Program Participant decides to sell or otherwise transfer ownership or management of the property, Program Participant agrees to give the Program Administrator notice of such decision prior to the intended sale or transfer and to give the purchaser or transferee notice of this Cooperative Agreement so that the purchaser or transferee can become a party to it if he or she so wishes. Program Participant will inform the Program

Administrator in the event all, or part of, the Program Participant's property delineated on the map labeled Exhibit A is transferred to another owner.

9. The Program Participant shall grant the Program Administrator access to Program Participant's property to confirm that the agreed-upon restoration, enhancement, or management activities have been conducted, and to assess the condition of the habitats being managed under the Cooperative Agreement. The Program Administrator shall give the Program Participant reasonable notice of these visits and shall be accompanied by the Program Participant or an agent of the Program Participant if the Program Participant so desires.

10. The Program Participant, or the Program Participant's successors or assigns, may terminate the Cooperative Agreement for reasons beyond their control at any time by giving 60 days written notification to the Program Administrator, in which case the Program Participant or the Program Participant's successors or assigns' right to incidentally take the species under the permit and Certificate of Exclusion shall expire two years after giving such notice.

11. This Cooperative Agreement can be renewed, extended, or modified at any time subject to both the Program Participant's and the Program Administrator's approval. The baseline conditions in any renewal or extension of this Cooperative Agreement shall be the same as set forth in Part 7 above.

12 Program Participant and the Program Administrator agree with respect to liability and indemnification for injuries to persons or property arising out of this Agreement as follows: [details may vary from agreement to agreement] Program Participant assumes no liability for injury to any employee or representative of Program Administrator in the course of any visit to the property under this agreement. Program Administrator shall not be liable for any damage to the property of the Landowner arising from any visit to the property pursuant to this agreement.

13. So long as the permit and Certificate remain in effect, and provided the management activities required by this Agreement have been carried out, the Program Participant may exercise the right conferred by the Program Administrator's permit and the Certificate to incidentally take the species identified above on the enrolled property.

_____,	_____,
Alameda County Resources Conservation District	Program Participant
By_____	By_____
Date_____	Date_____

Exhibit A

[map of the property subject to the cooperative agreement]

Exhibit 3

Certificate of Inclusion

CERTIFICATE OF INCLUSION

This certifies that the property described as follows [DESCRIPTION], owned by [NAME OF PROGRAM PARTICIPANT], is included within the scope of Permit No. ____ issued by the U.S. Fish and Wildlife Service on [DATE] for a period of 50 years to the Alameda County Resource Conservation District under the authority of section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended, 16 U.S.C. 1539(a)(1)(A). Such permit authorizes certain activities by participating landowners as part of a safe harbor program to restore and enhance habitat for the California red-legged frog and the California tiger salamander. Pursuant to that permit and this certificate, the holder of this certificate is authorized to engage in activities on the above described property that may result in the incidental taking of such species, subject only to the terms and conditions of such permit and the agreement entered into pursuant thereto by the Alameda County Resource Conservation District and [NAME OF PROGRAM PARTICIPANT] on [DATE].

_____
Alameda County Resource Conservation District

Date: _____

Exhibit 4
DRAFT PROTOCOL FOR DETERMINING BASELINE HABITAT FOR LANDLOWNERS ENROLLING IN THE ALAMEDA COUNTY WILDLIFE-FRIENDLY POND PROGRAM

Owner's name _____

Evaluator's name _____Date_____

Pond name and/or location _____

GPS coordinates_____ Quad sheet _____

Instream or Offstream (circle one) Waterbody ID number _____

Name of stream to which the pond is a tributary_____

The following information will be provided by ACRCD for each pond.
Refer to Section 4 of the Protocol for information regarding methods.
Any definition of "habitat" or "suitable habitat" herein applies to this protocol only and does not apply to any otherwise applicable regulatory requirement.

SECTION 1
BASEINE POND AND RIPARIAN HABITAT

Pond size
The surface area of the current pond is approximately ____ square meters.

In order to maintain the baseline, the surface area of the pond must be at least the sizeslisted above.

SECTION 2
BASELINE UPLAND HABITAT

Baseline within 100 meters of the pond
The area of the enrollee's property within 100 meters of the pond that is baseline for California red-legged frogs and California tiger salamanders is approximately____ acres (to the nearest quarter of an acre).

Baseline within 630 meters of the pond
The area of the enrollee's property within 630 meters of the pond that is baseline for California tiger salamanders is approximately ___acres (to the nearest ten acres):

Moist refuge when pond dries

If the pond dries naturally or is dried for purposes of predator management, California red-legged frogs require a moist area such as a seep wetland, plunge pool, or other suitable microhabitat in which to stay moist until the pond refills. Check all of the following that apply:

___A reliably moist area (formed by debris piles, dead and down trees, trough, a seep wetland, plunge pool, riparian area or the like) is available year-round in dry, normal, and wet years within 100 meters of the pond.

___A reliably moist area (formed by debris piles, dead and down trees, trough, a seep wetland, plunge pool, riparian area or the like) is available year-round in normal and wet rainfall years within 100 meters of the pond.

___No moist refuges are currently available in critically dry, dry, or normal rainfall years within 100 meters of the pond.

In order to maintain the baseline, the baseline area (acreage) on the enrollee's property within 100 meters of the pond must be at least as much as indicated above, and the baseline area (acreage) on the enrollee's property within 630 meters of the pond must remain at least as large as the areas listed above. In addition, if a reliably moist area is present in a dry year, an equivalent reliably moist area must remain present in dry, normal, or wet years; if a reliably moist area is present in normal or wet years only, then the baseline can be maintained by providing an equivalent reliably moist area in these two year types; if no moist refuges are available during critical, dry, or normal year types, then none need be maintained in order to maintain the baseline.

SECTION 3
ADDITIONAL INFORMATION – NOT PART OF THE BASELINE

This information is provided to assist the Natural Resources Conservation Service and the Alameda County Resource Conservation District to optimize the program. It does not define the baseline that the landowner must maintain.

Site Diagram # 1:
Sketch pond shape. Indicate general extent of shallow water and deep water areas. Show relationship to landscape and structural features, e.g., steep bank, fence, roadway, spillway, etc. Indicate distribution and quality (sparse, moderate, dense) of emergent vegetation an riparian vegetation, if present.

Site Diagram #2:
Indicate the distribution of suitable upland habitat as well as other land uses within 100 meters and within 630 meters of the pond using ortho-imagery (a computer-generated aerial photo) or equivalent. Include location and type of upland barriers, as well as the location and type of moist refuge(s).

Metapopulation Information:
If this information is unavailable, indicate "unknown".

Distance to nearest pond _____

Number and approximate area of ponds within 2 kilometers _____

_____ _____

Number and approximate area of ponds within 6 kilometers _____

_____ _____

Do any of these ponds contain non-native predators such as bullfrogs, crayfish, or bass?

_____

Diagram #3:
Show location of ponds within 6 kilometers and note presence/absence (if known) of California red-legged frogs, California tiger salamanders, and non-native predators.

Photo-documentation:
Photos of the pond and upland areas at the time the baseline is recorded should be attached. Identify specific and relocatable photo-points for periodic photo-monitoring and recordkeeping.

SECTION 4
METHODS

1. The surface area of the existing pond, shallow water area, and deep water area will be estimated by visual inspection, poleing, and GPS where possible. Pond surface dimensions will be determined prior to pond restoration and will consist of the outlet elevation drawn in a line around the entire pond circumference. For information purposes only (and not part of the baseline) the late season elevation of the pond's low water mark also should be recorded.

2. Baseline within 100 meters of the pond is defined as habitat is on the landowner's property and must include predominantly grass and grass-like plants, which may include sparse stands of brush and riparian and oak woodland. The habitat also must include ground squirrel burrows at a density of at least 5 per 30 square meters. ACRCD and NRCS staff assessing baseline must be trained and familiar with the preferred habitats of both California red-legged frogs and California tiger salamanders, as provided in the Biological Opinion for the program (1-1-04-F-0062).

3. Baseline within 630 meters is defined as 75% of the habitat that meets the following habitat suitability requirements[9]: the habitat must be on the landowner's property and must include predominantly grass and grass-like plants, which may include sparse stands of brush and riparian and Oak woodland. Suitable habitat also must contain burrows left by ground squirrels and gophers at a density of at least 5 per 30 square meters, on average. Land that has been converted to housing or row crops, that is impacted by significant vehicular traffic, or that lacks burrows in sufficient density does not qualify as suitable upland habitat. In addition, habitat that meets the above suitability requirements but is isolated from the breeding pond by barriers should not be counted as suitable habitat. ACRCD and NRCS staff assessing baseline must be trained and familiar with the preferred habitats of both California red-legged frogs and California tiger salamanders, as provided in the Biological Opinion for the program (1-1-04-F-0062).

4. Moist refuge: "Dry," "normal" and "wet" years will be defined consistent with the San Joaquin River flow index, or according to any other protocol approved by ACRCD and FWS.

[9] Trenham and Shaffer(2005) estimate that in optimal habitat, 95% of California tiger salamander remain within 630 meters of breeding ponds. The animals will, however, move through farms and low density residential areas. For these reasons, the baseline requirements limit the area within 630 meters that may be developed, farmed, or converted from other land uses that excludes mammal burrows, consistent with advice provided by Peter C. Trenham (Apirl 5, 2005 email from Peter C. Trenham to Ivana Noell@ca.usda.gov; copy available upon request).

We certify that the foregoing baseline information is correct to the best of our knowledge:

(insert spaces for ACRCD and landowner signatures and dates)

Exhibit 5
Neighboring Landowner Agreement

1. [Owner] owns land (hereafter "the Property") in Alameda County, California, that is designated on the attached map and that is adjacent to land enrolled in the Programmatic Safe Harbor Agreement between the Alameda Country Resource Conservation District (hereafter "ACRCD") and the United States Fish and Wildlife Service (hereafter "FWS"), dated [date]. The Programmatic Safe Harbor Agreement, and the permit issued by FWS to ACRCD in connection therewith, authorizes participating landowners who enter into agreements to restore habitat on land enrolled in the program to take threatened California red-legged frogs and California tiger salamanders (the "covered species") incidental to ranching, and certain other lawful activities on the enrolled land, provided that baseline habitat conditions as specified in such agreements are maintained.

2. ACRCD administers the foregoing Programmatic Safe Harbor Agreement, and as such is authorized by that Agreement to enter into agreements with landowners who enroll land in the Programmatic Agreement, as well as with other landowners who own land that is adjacent to land enrolled in the Programmatic Agreement and within 630 meters of any stock pond restored pursuant to the Programmatic Agreement. Such "Neighboring Landowner Agreements" confer upon such neighboring landowners rights to take endangered and threatened species incidental to lawful activities on such neighboring land, subject to requirements set forth in the Programmatic Agreement, that are similar to the rights of landowners who enroll land in the Programmatic Agreement.

3. [Owner] agrees not to reduce the amount of suitable habitat on the Property within 630 meters of a restored pond on land enrolled in the Programmatic Agreement to less than [number] acres, which ARCD has determined, pursuant to the protocol specified in the Programmatic Agreement to be the baseline applicable to the Property. Suitable habitat is habitat characterized by predominantly grass and grass-like plants, which may include sparse stands of brush and riparian and oak woodland, and which has ground squirrel burrows at a density of at least 5 per 30 square meters.

4. [Owner] agrees to give ACRCD at least 90 days notice (except when precluded by emergency situations) prior to commencing any change in land use within 0.7 miles of a restored pond on land enrolled in the Programmatic Agreement that is likely to convert suitable habitat, and agrees to work with ACRCD to ensure that any

conversion of suitable upland habitat to unsuitable habitat does not create a barrier to dispersal of the covered species to any potential breeding pond on the Property within 0.7 miles of any restored pond on land enrolled in the Programmatic Safe Harbor Agreement.

5. In return for [Owner's] agreement as set forth in paragraphs 3 and 4 hereof, ACRCD will issue to [Owner] a Certificate of Inclusion pursuant to the permit referenced above, which shall authorize [Owner] to take the covered species incidental to any otherwise lawful activities within 630 meters of a breeding pond that has been restored pursuant to the Programmatic Agreement, provided such activities are consistent with zoning requirements in effect at the time of issuance of such permit.

5. This Neighboring Landowner Agreement remains in effect until the expiration of the Programmatic Safe Harbor Agreement.

[Owner] Date

Alameda County Resource Conservation District Date

x